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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,671	07/11/2001	Donald Zaff Rogers	DEP05507-RE	5452

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EXAMINER

NAKARANI, DHIRAJLAL S

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 05/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/901,671

Applicant(s)

ROGERS, DONALD ZAFF

Examiner

D. S. Nakarani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2005.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-48 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-48 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Applicant's request during interview on March 23, 2005 and agreement, the finality of the rejection of the last Office action is withdrawn.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 13-15, 27 and 35-48 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specifications as originally filed fail to describe (1) a substantially transparent substrate having at least one curved surface and at least two dimensions substantially the same (claim 13), (2) a substrate having at last one curved surface and at least two dimensions

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substantially the same (claim 35), (3) a substantially transparent substrate having a desired shape (claim 40) or three dimensional substrate (claim 45) with at least one curved surface and substantially the same maximum dimension in at least two orthogonal directions (claim 40 and claim 45), (4) a substantially transparent substrate having at least two non-parallel curved surfaces (claim 27), (5) a substantially transparent substrate having a desired shape with substantially the same maximum dimension in three orthogonal directions and at least one generally circular cross-section (claim 44) and (6) a substantially transparent, three dimensional substrate having substantially the same maximum dimensions in at least two orthogonal directions and at least one generally circular cross-section (claim 48).

All above mentioned limitations are derived from a single species, namely “a substrate composed of lead crystal glass and formed in the shape of a turtle” (Example 2). There is no evidence in the originally filed specification that applicant had possession of articles such as automobile windshield (see U.S. Patent 6,068,914, Fig. 2 and column 2, line 65 to column 3, line 51), micro spheres (U.S. Patent 6,288,837, Fig. 6, column 9, lines 48-65), optical fibers etc. These articles are encompassed by these claimed limitations. However, the specification as originally filed lacks description of above-mentioned limitations. Further more, a single species (turtle) does not provide support for wide number of articles covered by these claims (See MPEP 2163.05, under “Addition of Generic Claim”).

6. Claims 17-20, 22-25, 28, 29 and 31-33 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to

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one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed, failed to describe (1) a substrate having height, width and depth dimensions substantially the same (claim 17), (2) a substrate having a depth dimension substantially the same as either its height or width dimensions (claim 22) and (3) a substrate having maximum height, width and depth dimensions substantially the same (claim 28).

All above-mentioned limitations are derived from a single species namely "a substrate composed of cubic zirconium dioxide and formed with cut and polished facets (Example 1)". There is no evidence in the originally filed specification that applicant had possession of articles such as micro spheres (U.S. Patent 6,288,837), prisms used in optical instruments etc. These articles are encompassed by these claims. However, the specification as originally filed lacks description of above-mentioned limitations. Furthermore, a single species (cubic zirconium dioxide) does not provide support for wide number of articles covered by these claims (MPEP 2163.05 under "Addition of Generic Claim").

7. Claims 13-15, 17-20, 22-25, 27-29, 31-33 and 35-48 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a substantially transparent substrate of a size and shape suitable for use as decorative objects and gemstones, does not reasonably provide enablement for a substantially transparent substrate of a size and shape suitable for use as non-decorative objects such as windshield (U.S. Patent 6,068,914), micro spheres (pigment) (U.S. Patent 6,288,837), wave guides, optical filters etc. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly

connected, to make and use the invention commensurate in scope with these claims. The specification as originally filed is enabling for a substantially transparent substrate of a size and shape suitable for use as decorative objects and gemstones. The specification as originally filed is not enabling objects such as spherical pigment particles, windshield, optical filters, waveguides, optical fibers, flash lamp (U.S. Patent 4,925,259, Fig. 12, column 3, lines 37-60) etc. (MPEP 2163.05, under "BROADENING CLAIM).

8. Claims 17, 34, 46 and 47, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 17, lines 4 and 5, the phrase "said non-planar substrate" lacks clear antecedent basis. No non-planar substrate has been previously recited therefore limitation cannot be understood.

Claim 34, line 1, the phrase "claim 28 having a size and shape" renders claim indefinite. How method can have size and shape? Changing above phrase to the phrase -- claim 28, wherein the substrate having a size and shape --may overcome the rejection.

Claims 46 and 47, line 1, the phrase "method of Claim 44" renders claims confusing since the claim 44 is directed to "an article of manufacture" not to "a method".

9. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Austin (U.S. Patent 5,332,618).

Austin discloses an article of manufacture such as sunglasses (column 1, line 12) comprising a transparent substrate such as glass, plastic materials (column 9, lines 10-15), coated with alternating layers of substantially non-absorbing (transparent) high and low refractive index materials (column 3, lines 50-57). The glass substrate coated on both surfaces is disclosed (column 6, lines 43 and 44 and column 7, lines 21-24). Austin's curve 48, (Fig. 8), curve 66 (Fig. 13) and curve 70 (Fig. 15) show some reflection of light with wavelengths between 400 nanometers and 700 nanometers. Austin discloses coating methods such as sputtering, chemical vapor disposition, plasma assisted chemical disposition process, wet chemical immersion etc. (column 9, lines 23-33). Austin's low refractive layer forming materials include silicon dioxide, magnesium fluoride etc. (claim 5), high refractive index material such as titanium oxide, cerium oxide, bismuth oxide, zinc-oxide, zinc sulfide etc. (column 8, lines 47-59). Austin's coated glass for sunglasses deemed to be suitable for making sunglasses. The sunglasses are deemed to be an ornament because the term "ornament" means anything, which enhance the appearance. A blind person wears sunglasses to improve appearance and to protect eyes.

10. Claims 1-17, 22-27, 35-43 and 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Austin (U.S. Patent 5,332,618) in view of Perilloux (U.S. Patent 4,793,669), Broadhurst (U.S. Patent 3,752,567) and applicants' own admission (column 3, line 64 to column 4, line 11).

Austin, which has been discussed above in paragraph 9, fail to disclose (1) shape of coated glass used for making sunglasses, (2) Reflecting higher amount of selected wavelength of visible light and (3) at least two non-parallel curved surfaces.

Applicant admit that design and use of multi-layer optical interference films to selectively reflect certain wavelengths of light are well known in the art; modern practices in design, use, and manufacture of such thin film optical filters (column 3, line 64 to column 4, line 11). Sunglasses in addition to an ornament are also considered as an optical filter.

Perilloux disclose sunglasses that have selected color such as blue, orange or violet (Abstract). Perilloux also teach a multilayer coating of high and low refractive index materials (column 2, line 55 to column 3, line 11).

Broadhurst teach circular lenses, square lenses and octagonal shaped lenses and lens frames for ordinary eyeglasses and sunglasses. The circular lens has at least one curved surface and two orthogonal dimensions the same, at least non-parallel curved surfaces, and also has circular cross section (column 1, lines 12-15, eyeglass lenses 18a, 18b, 18c and 18d in Fig. 1, column 2, lines 42-52).

Therefore it would have been obvious to a person of ordinary skill in the art at the time of this invention made to utilize disclosure of Perilloux and Broadhurst in the invention of Austin to make desired colored sunglasses in the circular shape.

11. Claims 17-21, 22-26, 28-44, and 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Etzkorn et al (U. S. Patent 5,236,511) in view of Hettich et al (U. S. Patent 4,769,290) and Applicant's own admission (Col. 3, line 64 to col. 4, line 11).

Etzkorn et al teach dome shaped reflector (Col.1, lines 15-25) comprising dome shaped glass substrate coated inside and/or outside face with alternating layers of high and low refractive index materials (Examples 1 and 2 and Figs. 1 and 2). Etzkorn et al teach coating strongly



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arched large area substrate such as domes (column 2, lines 38-46). Etzkorn et al's dome may have height, width and length dimensions the same (Col. 5, lines 19-29). Etzkorn et al fail to disclose high refractive index material such as tantalum oxide, titanium oxide and hafnium oxide and low refractive material such as silicon dioxide

Hettich et al disclose high efficiency reflectors reflecting more than 99.99% of incident light at one or more specific wavelengths in the range of about 300 to about 1200 nanometers. While admitting a substantial portion of incident light at all other wavelengths in this range. The wavelengths range includes ultraviolet light wavelengths and infrared light wavelengths. Since Hettich et al's reflector transmit (admit) other non-selected wave lengths it is also considered as an optical filter Hettich et al's reflectors comprises substrate coated with an alternating layers of high and low refractive index materials (Example). Hettich et al disclose high refractive index material such as tantalum oxide, titanium oxide and hafnium oxide and low refractive material such as silicon dioxide (Claim 13 and col. 2, lines 5-12).

Applicant admit that design and use of multi-layer optical interference films to selectively reflect certain wavelengths of light are well known in the art; modern practices in design, use, and manufacture of such thin film optical filters (column 3, line 64 to column 4, line 11).

Therefore, in absence of establishing criticality of substrate having height, width and length dimensions substantially the same, it would have been obvious to a person of ordinary skill in the art to which this invention pertains to utilize disclosure of Hettich et al in the invention of Etzkorn et al to coat dome shaped article with coating material disclosed by Hettich et al and to reflect any desired wavelengths of light. Dome shaped reflector having height, width

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and length substantially the same is considered within the skill of the art and/or is design choice depending on application of reflector.

No claims are allowed.

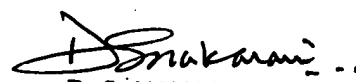
11. Applicant's arguments with respect to claims 1-48 have been considered but are moot in view of the new ground(s) of rejection.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner D.S. Nakarani whose telephone number is (571) 272-1512. The examiner can normally be reached on Tuesday-Friday from 7:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571) 272-1284. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

D.S. Nakarani/dh  
May 13, 2005

  
**D. S. NAKARANI**  
**PRIMARY EXAMINER**